

School E

Project 4R's: SUMMARY OF PROJECT

Introduction:

A Project 4R's grant will allow <School E> to implement "Counting on Reading and Writing," a teacher-created program which will incorporate technology while increasing student achievement in the areas of reading, writing, and math. This program will bridge the gap between Kindergarten and first grade curricula while building on math strengths in these grade levels.

The Learning Needs:

The learning needs of <School E's> students are twofold. These students need a strong foundation in reading, writing, and math and a logical transition between these grades.

Proposed Solution Using Instructional Technology:

<School E> plans to place a multimedia publishing station in each K-1 classroom to implement "Counting on Reading and Writing." Students will become engaged learners through the use of instructional technology. Students will set their goals and evaluate their achievement. This same technology will allow for problem solving and opportunities to collaborate with others. Beginning at the K-garten level, students will be introduced to technology which will offer visual, auditory, and kinesthetic experiences through "Counting on Reading and Writing." Consistent practices using technology will provide a logical transition to first grade learning. At both grade levels, the use of technology will be utilized as a transparent tool. "Counting on Reading and Writing" will enhance student learning while putting the most powerful tools in the least powerful hands.

Project Objectives:

- Students will have increased opportunities to utilize technology in reading, writing, and math.
- Students will receive daily remediation opportunities using technology.
- Students will recognize technology as a learning tool.

Activities to meet Objectives:

Students will use digital cameras, scanners, and multimedia computers to create math journals. At the kindergarten level, students will explore sets by taking pictures of objects or scanning objects with similar attributes. They will then explore number value by taking pictures of or scanning a set of a specific number of objects. In both activities, students will provide a brief narrative describing the set. In first grade, the activity will be expanded. Children will take digital pictures of or scan pictures of real life situations that reflect a mathematical concept. Students will then create a journal entry which explains the mathematical concept. At a yet higher level, students will be required to create story problems in their math journal. Then they will take digital pictures or scan pictures of situations which demonstrate an understanding of the needed problem solving strategies.

How the Project will be Evaluated:

A rubric will be created for each math and writing standard required. An Indiana Standards-based rubric will be created to evaluate the child's ability to read the journal. At the beginning of the project, journals will be teacher-evaluated. Through modeling and conferences, journals will later be student-evaluated.

NEEDS ASSESSMENT

K-1 reading, writing, math curriculum strengths/weaknesses:

<School E's> kindergarten and first grade teachers met with the librarian and the curriculum director to assess strengths and weaknesses of their grade levels.

Strengths include:

- six all-day/everyday kindergarten classrooms
- kindergarten math uses manipulatives
- kindergarten math stresses number value
- first grade reading is literacy-based
- first grade math builds on K math and prepares for second grade math
- first graders are offered many opportunities to write for many purposes
- first grade reading, writing, and math are tied to state standards

Weaknesses include:

- kindergarten reading is not literacy-based
- kindergarten reading is not tied to state standards
- first grade writing does not follow 5-step process
- there is a gap between kindergarten and first grade curriculum in reading and writing
- teaching techniques do not provide a logical transition between grade levels

Areas of improvement:

Kindergarten and first grade students need opportunities to improve reading and writing skills. Building on strengths in math, "Counting on Reading and Writing" will offer these creative opportunities to increase reading and writing skills which will have an impact on reading and writing achievement.

Professional Development Needs:

<School E's> kindergarten and first grade teachers have the ability to manage technology in their classroom with five networked computers in each class. There are varying levels of technological expertise at each grade level. Teachers need extensive professional development in utilizing technology as an instructional tool in the existing curriculum. Many teachers view technology as a stand-alone curriculum instead of a tool for curriculum integration. These same teachers have the ability to make personal use of the technology available. However, they do not see the carryover into classroom instruction.

Technology needs as they relate to reading, writing, math in K-1:

<School E's> kindergarten and first grade students need up-to-date technology available to explore learning possibilities in reading, writing, and math. They also need teachers who are trained in utilizing technology to its fullest potential as an instructional tool.

<School E's> building concerns regarding technology equipment:

K-1 computer technology was on the cutting edge ten years ago. Though five network machines exist in each classroom, the capabilities of these machines are limited. However, these machines are networked and offer word processing possibilities. A multimedia machine, a digital camera, a scanner, and a color printer in each classroom will allow teachers and students to utilize the existing word processing formats available and import text into the multimedia publishing station taking instruction and learning to a higher level through the use of up-to-date technology.

PROJECT GOALS AND OBJECTIVES**Project Goal:**

To increase student achievement as measured by the Indiana Standards rubric in the areas of reading, writing, and mathematics through the integration of technology.

Objectives:

L1: *Provide every kindergarten and grade one student the opportunity to learn reading, writing, and mathematics using technology.*

--Given expanded opportunities to utilize technology during and after school, K-1 students will increase reading achievement as measured by the "Counting on Reading and Writing" journal rubric which is Indiana Standards-based and teacher-created.

--Given expanded opportunities to utilize technology during and after school, K-1 students will increase writing achievement as measured by the "Counting on Reading and Writing" journal rubric which is Indiana Standards-based and teacher-created.

--Given expanded opportunities to utilize technology during and after school, K-1 students will increase mathematics achievement as measured by the "Counting on Reading and Writing" journal rubric which is Indiana Standards-based and teacher-created.

METHODS AND ACTIVITIES**Thematic Unit integrating reading, writing, math, technology**

Through "Counting on Reading and Writing," students will use multimedia computers, digital cameras, scanners, and color printers to create math journals, which will integrate math, writing and reading. At the kindergarten level, students will explore sets by taking pictures of objects or scanning pictures of objects with similar attributes. They will then explore number value by-taking pictures of a set or scanning pictures of a specific number of objects. In both activities, they will provide a narrative describing the set. In first grade, the activity will be expanded. Children will take digital pictures of real life situations that reflect a mathematical concept. Students will then create a journal entry which explains the mathematical concept. At a higher level, students will be required to first create story problems in their math journal. They will then take digital pictures which demonstrate an understanding of the needed problem solving strategies.

1) Academic Standard

"Counting on Reading and Writing" incorporates academic standards in the areas of writing, math, and reading. At the Kindergarten level, "Counting on Reading and Writing" will develop math standard one: number sense and six: problem solving, reading standard one: word recognition, vocabulary development, writing standard four: writing process and standard five: writing applications. At the first grade level, this program will continue to develop math standard one: number sense and six: problem solving and include math standard two: computation. It will increase reading standard one: word recognition and vocabulary development while developing reading standard two: reading comprehension. "Counting on Reading and Writing" will increase writing standard four: writing process and standard five: writing applications.

2) Learner-centered environment

The teacher and the student will design goals of the journal lessons. The student will complete journal entries with needed help from instructors, collaboratively in small groups, and independently as needed skills increase. In early stages of journal lessons, students will learn from the teacher model. Next, the students will learn from each other. Finally, students will be able to teach others their learned skills in reading, writing, and math through the use of technology.

3) How planned activities are developmentally appropriate, differentiated, learner-centered: "Counting on Reading and Writing" journal entries at the kindergarten level will focus on beginning math skills. Students will focus on like attributes before they begin to explore number values. Journal entries at this level may be only one or two words. (Early example: Red blocks. Later example: Five black beans. At the first grade level, students will math concepts beyond number value and begin addition while providing digital examples in their math journals. Literacy skills be increase as math journal narratives expand. At each grade level, the student and the teacher will set developmentally appropriate goals for the journals and, teacher will monitor the need for differentiated and student-modified activities.

4) How technology will enhance existing classroom activities:

Kindergarten and first graders learn math in a concrete way. They first understand number set attributes, number value, and then begin to complete math processes using numbers. These same students maintain journals and read ability appropriate stories in literacy circles. "Counting on Reading and Writing" integrates activities already in place in most Kindergarten and first grade classrooms while providing students the opportunity to use hands-on technology to create an end product.

REMEDIATION SUPPORT

1) Daily opportunities in grades 1-3 before/after school

Students who are identified through standardized test scores (Student Test of Achievement in Reading, Terre Nova, I-STEP) and who receive teacher recommendation, will be given first priority to attend after school tutoring sessions instructed by a technology assistant hired for Project 4R's and by an At-Risk tutor. These 90 minute sessions will be offered for different grade levels each day. Students will spend 45 minutes utilizing a networked lab with the technology assistant. The remaining 45 minutes will focus on homework, test preparation, and direct instruction of language and math skills instructed by the At-Risk tutor.

2) Opportunities for students in other grades during school day or on Saturdays.

Title I students, as well as others identified through standardized test scores and teacher recommendation, will be given first priority to attend after school tutoring sessions on given days. These sessions will also be offered in 90 minute segments. Half of the time will utilize a technology lab instructed by a technology assistant while the remaining time will be focus-on homework, test preparation, and direct instruction of language and math skills provided the At-Risk tutor.

3) Remediation programs under IC20-10.1-25.1

Equipment purchased through the 4R's program will be utilized by Title I remedial assistants who instruct literacy circles in kindergarten and first grade classrooms to identified students who are in need of remediation in reading and writing. These same computers will be used by grade 3 and 6 students who attend I-STEP remediation classes.

4) Additional Summer Programs

Equipment purchased through the 4R's program will be utilized in the grade 1-3 Mutli-media Technology summer enrichment class. This equipment will also be available for the grade 4-6 Video production summer enrichment class. The grade K-2 and grade 3-6 Creative Writing summer enrichment classes will make use of this same equipment.

STAFF DEVELOPMENT

The Professional Development needs to ensure methods and activities in Sect. 4 will be successful in reaching objectives.

1) Ongoing, sustained professional development:

Staff development for this project will include two elements; staff development in hardware use and staff development in technology integration into the curriculum. Staff development for hardware use will be primarily in-house. Teachers understand the capabilities of the hardware currently available and utilize it on a daily basis, i.e. word processing. These same teachers will need instruction in digital camera use, scanner usage, and the use of the multimedia computers. will utilize its on-site technology support specialist to set up these machines and demonstrate their compatibility with existing hardware. When possible, students will demonstrate the use of digital cameras and scanners. These same students will show teachers how to import pictures and text into the multimedia machine. A technology integration specialist will be contracted to instruct teachers on the effective use of technology as an instructional tool. Through this in-service, teachers will begin to see opportunities to change their methods of instruction while integrating technology into the existing curriculum. "Counting on Reading and Writing" will become a concrete example of this technical integration. This project will serve as a model for future technological implementation into the existing grade-level curriculum.

2) Time allocated for teacher instruction in the effective use of technology in the classroom: The contracted technology specialist will conduct a one-day seminar providing an overview of the project at the beginning of the year. Six additional one-half days of instruction will be scheduled with the contracted technology specialist in preparation for each future segment of the project. Teacher preptime will be utilized to conduct the in-house equipment training prior to meeting with the contracted technology specialist. Additional in-house support will be provided to teachers on an as-needed basis.

3) Time-line for staff development and topics to be covered:

Date:	Topic:	Who:	How long:
Aug:	Equipment introduction corp.	tech support	3 45-minute prep periods
Aug:	Project Overview	project coordinator	1 day
Sept.	Best Practices	tech specialist	1/2 day
Oct:	Integrating technology into math	tech specialist	1/2 day
Dec:	Integrating technology into writing	tech specialist	1/2 day
Jan:	Evaluating the use of technology	tech specialist	1/2 day
Mar:	Integrating technology into reading	tech specialist	1/2 day
May:	Evaluating the project	tech specialist	1/2 day

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FORMATIVE AND SUMMATIVE EVALUATION

Describe how formative data will be collected and analyzed to help adapt and modify the methods and activities described in Sect. 4

In each segment of the "Counting on Reading and Writing" project, teachers will use Indiana Standards-based rubrics to establish base-line performance data. As students expand their journals, teacher will collect additional samples to measure achievement. Ultimately, students will self-assess using the same standards-based rubric and report their progress to the teacher. Through rubric assessment and journal conferences, teachers will suggest modifications of the product to meet Indiana Standards. Grade level teachers will meet to analyze data collected at the completion of each project segment. Teachers will make grade-level decisions on modifications needed as they approach the next segment of the journal project. At the end of the first year, Kindergarten teachers will meet with first grade teachers to review sample journals to determine if rubric objectives were attained and/or modifications necessary for grade one.

Describe how summative data will be collected and analyzed to determine the overall effectiveness of the project in meeting objectives and goals outlined in Sect. 3

Teachers will employ a time-line to monitor the progress of the project. This time-line will serve as a guide to indicate when each element of the stated goal should be achieved. To determine the overall effectiveness of the project, rubric results will be plotted on a matrix. These matrices will reveal the percentage of students who met the stated objectives of the project. These results will also determine areas where changes need to be made in the project.

4R's Budget
Proposed Expenditures for 4R's
June 1, 2001 through May 30, 2002

Funding Uses	4R's Project Funding	Local Funding Estimated expenditures from June 1, 2001 through May 30, 2002	Identify Sources of Local Funding
100 Professional Development: subs/stipends (May not include salaries)	\$3,000	\$2,130	Source:175 class reduct grant 1955 general fund
300 Professional Development: Travel conferences, visitations, training	\$3,000	\$20,000	Source: general fund
300 Professional Development: Contracted Services consultants / external trainers	\$ 3,000	\$	Source:
300 Equipment Maintenance	\$00	\$ 35,000	Source: capital projects fund
300 Telecommunications: Internet Other telcom services	\$00 \$00	\$ 5,500 \$13,000	Source: general fund general fund
400 Software	\$5,000		Source:
500 Hardware computers in classrooms scanners, digital cameras etc.	\$11,500 12 computers \$ 1,500-12 printers \$ 2,500-12 scanners \$ 4,800 12 dig cams \$ 5,000 2 vid proj	\$30,000	Source: general fund
Other (Specify)	\$8,700	\$3,000	Source: at risk grant
Total Local Share (Must include local funding [C20-10.1-25.1])	\$		
Total State Share (\$4,000 per K-1 Classroom max)			
Totals	\$48,000	\$108,630.00	Source: